

## Beyond EPD Generation

Meeting competitive demand for low carbon concrete with advanced measurement and analysis

- Climate Earth overview
- The game changing low carbon market
- The Climate Earth Advantage Pro™

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## Climate Earth is 100% Focused on the Concrete Industry

Ready Mix



CMU



Cement



Aggregate



Precast



Dry mix



Advanced materials



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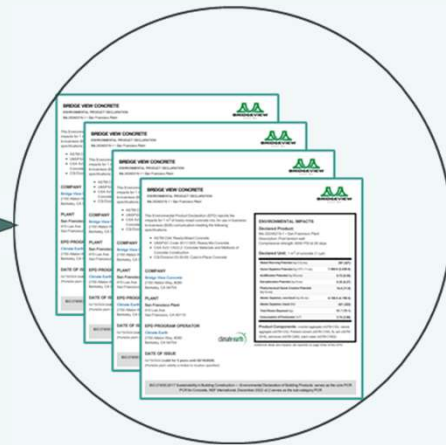
## The Global Leader in Ready Mix, Cement and CMU EPD Generation *over 1,200 plants worldwide & over 68,000 active EPDs*



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## Basic EPD Generators Today- EPD Essential<sup>™</sup>

A Single Valuable Function: Make EPDs cost effective and instantly accessible at scale



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## CURRENT Ready Mix Generators

EPD GENERATOR™ COMPARISON			
	 EPD ESSENTIAL™	 EPD ADVANTAGE™	 EPD ADVANTAGE PRO™
Overview	The Original EDP Generator™	EDP Generator™ with QC Integration & Mix Analysis	The New Era of EDP Generation & Low Carbon Innovation
Instant, On-Demand EPDs	✓	✓	✓
Bid-Ready EPDs	✓	✓	✓
EC3 Connection	✓	✓	✓
Always Current	✓	✓	✓
QC Integration		✓	✓
Single Click GSA & NRCMA Benchmarks		✓	✓
Filter, Sort, & Edit with Workbench		✓	✓
Manage 1,000s of EPDs		✓	✓
Company-Wide Dashboard			✓
Strategic insights Across All EPDs			✓
Advance Digital Integration			✓
Dynamic Drill-Down Enable Mix Analysis			✓
ACI 323 Low Carbon Concrete Code			✓
Tarantula Mix Optimization			✓
All Systems Benefit From:			
<ul style="list-style-type: none"> <li>✓ Unmatched EPD quality with 4 tier verification</li> <li>✓ Highly responsive support from concrete industry experts</li> <li>✓ Instant access to Climate Earth innovations</li> <li>✓ Anywhere access to a Secure, Scalable, Cloud-based system</li> </ul>			

Meeting local market needs

**EPD Essential™**

Initial requests for EPDs

**EPD Advantage™**

Workbench analysis, QC integration

**EPD Advantage Pro™**

The whole company is stepping up to lead and win in low carbon concrete

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## General Services Administration Sets Carbon Limits

Buy American requirements and IRA LEC requirements

Specified concrete strength class (compressive strength [f'c] in pounds per square inch [PSI])	GSA IRA Limits for Low Embodied Carbon Concrete (EPD-Reported GWPs, in kilograms of carbon dioxide equivalent per cubic meter - kgCO <sub>2</sub> e/ m <sup>3</sup> )		
	Top 20% Limit	Top 40% Limit	Better Than Average Limit
≤2499	228	261	277
3000	257	291	318
4000	284	326	352
5000	305	357	382
6000	319	374	407
≥7200	321	362	402

Add 30% to these numbers for GWP limits where high early strength<sup>1</sup> concrete mixes are required for technical reasons.

% of GSA IRA Limits

**CALGreen**

175%, effective Jul 2024

**New York State**

150%, effective Jan 2025



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## In 2025, Thirty-five states will be implementing EPDs<sup>7</sup> as a purchase metric



Source: Federal Highway Administration  
[www.fhwa.dot.gov/innovation/everydaycounts/reports/edc7\\_baseline\\_report\\_508.pdf](https://www.fhwa.dot.gov/innovation/everydaycounts/reports/edc7_baseline_report_508.pdf)

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## Many Everyday Projects Now Demand Reduced Carbon Concrete



Data Centers



Distribution Centers



Federal Institutions



Large Cities



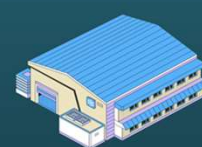
Large Corporations



Military Bases



Universities

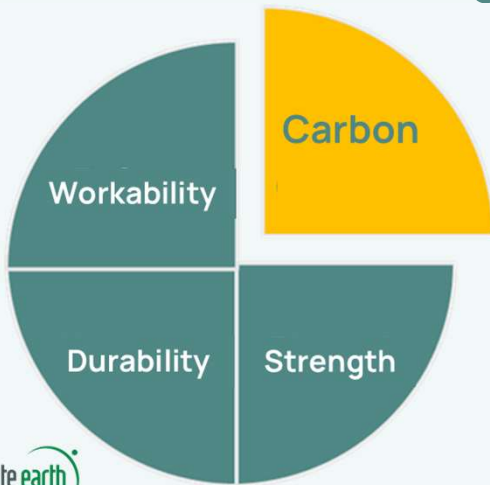


Warehouses



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## Carbon as a Purchase Metric is a Game Changer for the Industry



### The Eight Implications

Mix design  
 Bid submittals  
 Company reporting  
 Digitization  
 Integration  
 Company valuations  
 Net zero capital investments  
*Measuring and managing all of it*

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EPD ADVANTAGE PRO™

The latest in low carbon  
 concrete innovation by



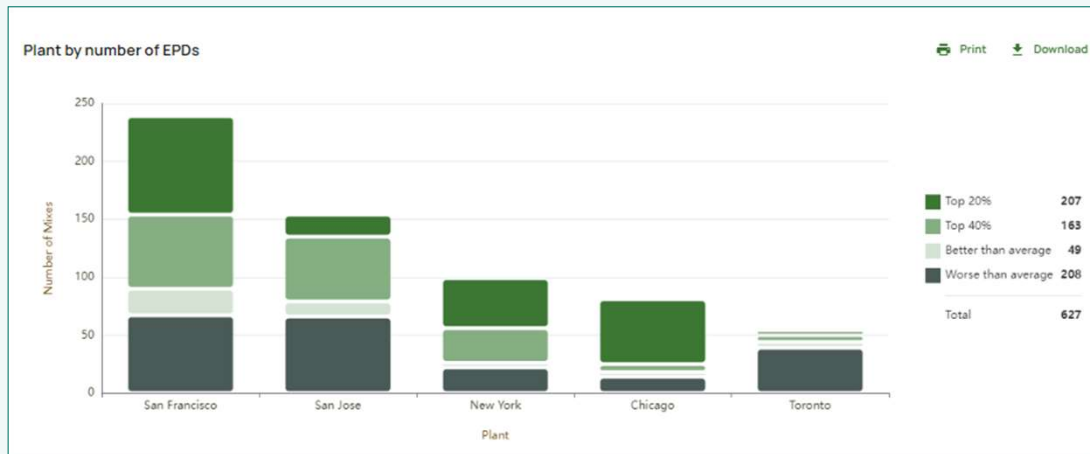
## EPD Advantage Pro™

The world's first EPD Information  
 Management System

Climate Earth's response  
 to help producers meet  
 the new demand

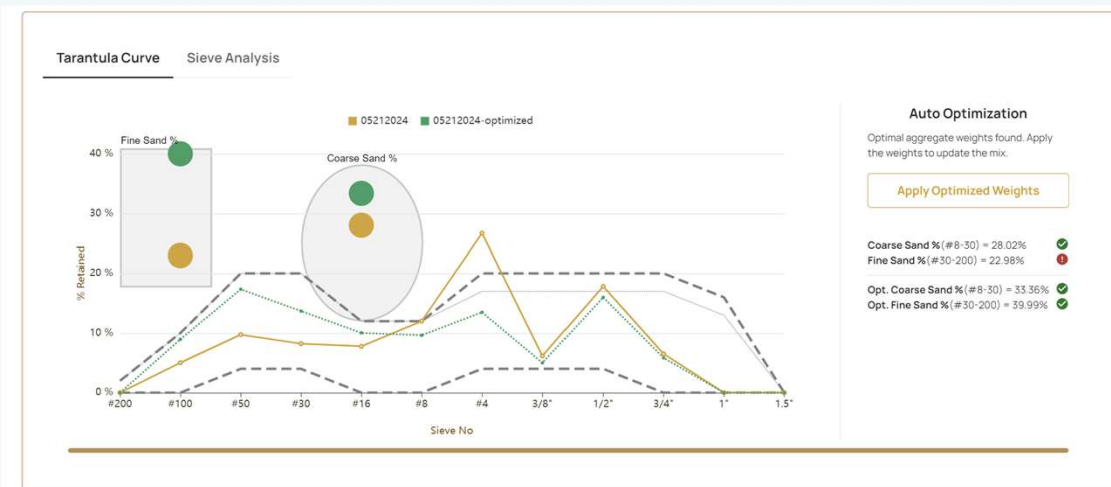
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## A Closer Look at Pro- Demonstration Producer/Plant Dashboard



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## Tarantula Curve Mix Optimization



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## ACI 323 Project Reporting

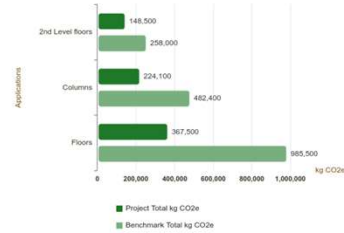
**PACIFIC NORTHWEST PORT**  
ACI 323 LOW CARBON CONCRETE REPORT  
COMPARISON BASED ON CALGREEN V1  
SUBMITTED BY BRIDGE VIEW CONCRETE  
2150 Allston Way, #280  
Berkeley, CA 94704



### WEIGHTED AVERAGE PROJECT CO2E/CYD VS. PROJECT BID CO2E/CYD

<b>548</b> Weighted Average Benchmark CO2E/Cyd	<b>235</b> Weighted Average Project CO2E/Cyd	<b>-57.1%</b> Weighted Average Reduction CO2E/Cyd
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### OVERALL PROJECT CO2E PERFORMANCE



<b>1,725,900</b> Benchmark Total kg CO2e	<b>740,100</b> Project Total kg CO2e	<b>-985,800</b> Total Reduction kg CO2e
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## Strong Integration Capability (APIs)

### Climate Earth Current API Library

QC Systems

Program  
Operators

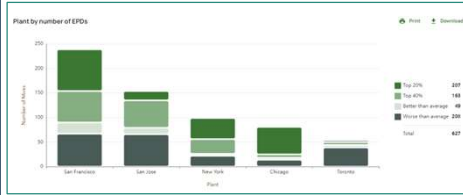
EPD Analysis

AI Mix Design  
Optimization

Custom



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## Thank you

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